

FIG. 1

FIG. 2

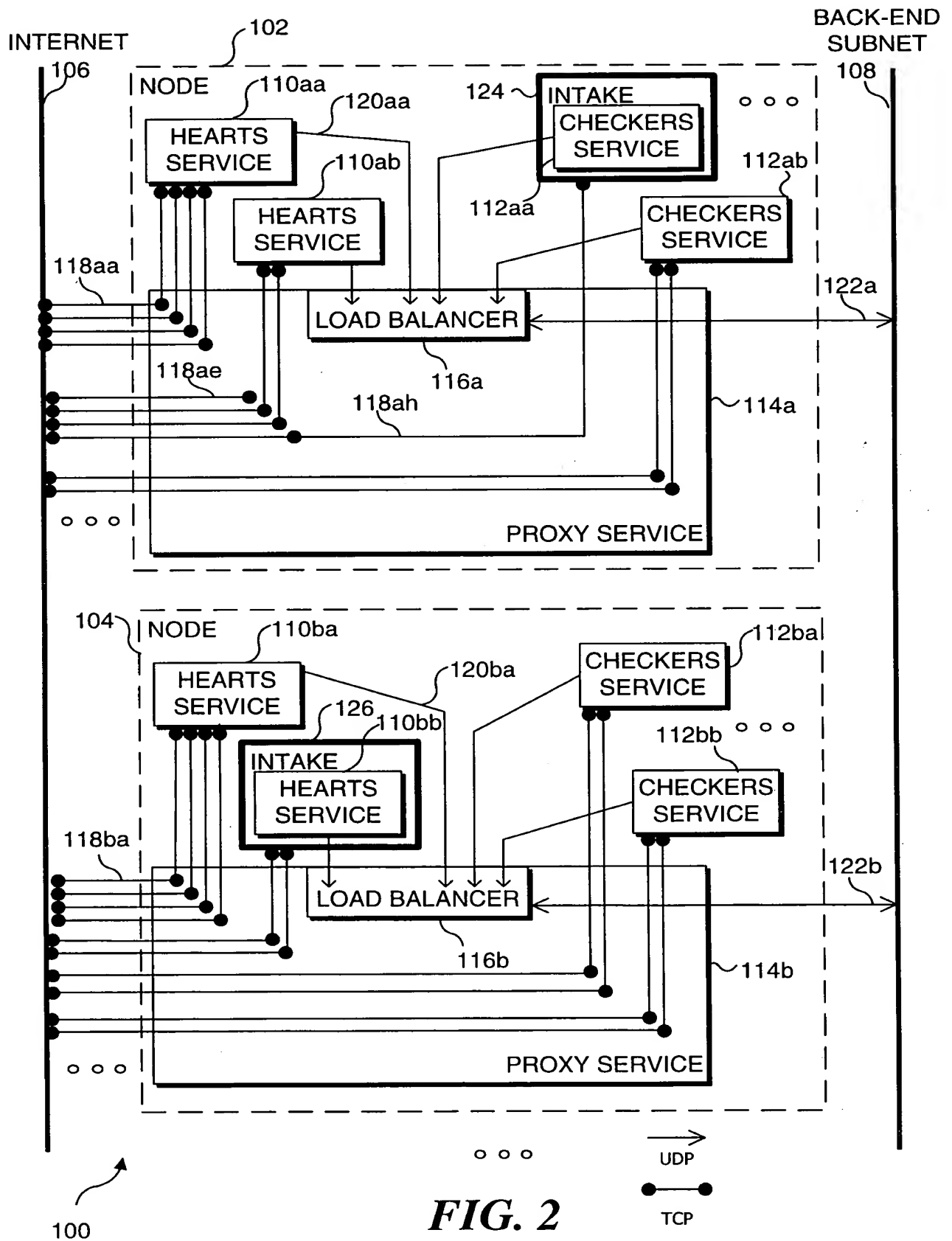


FIG. 2

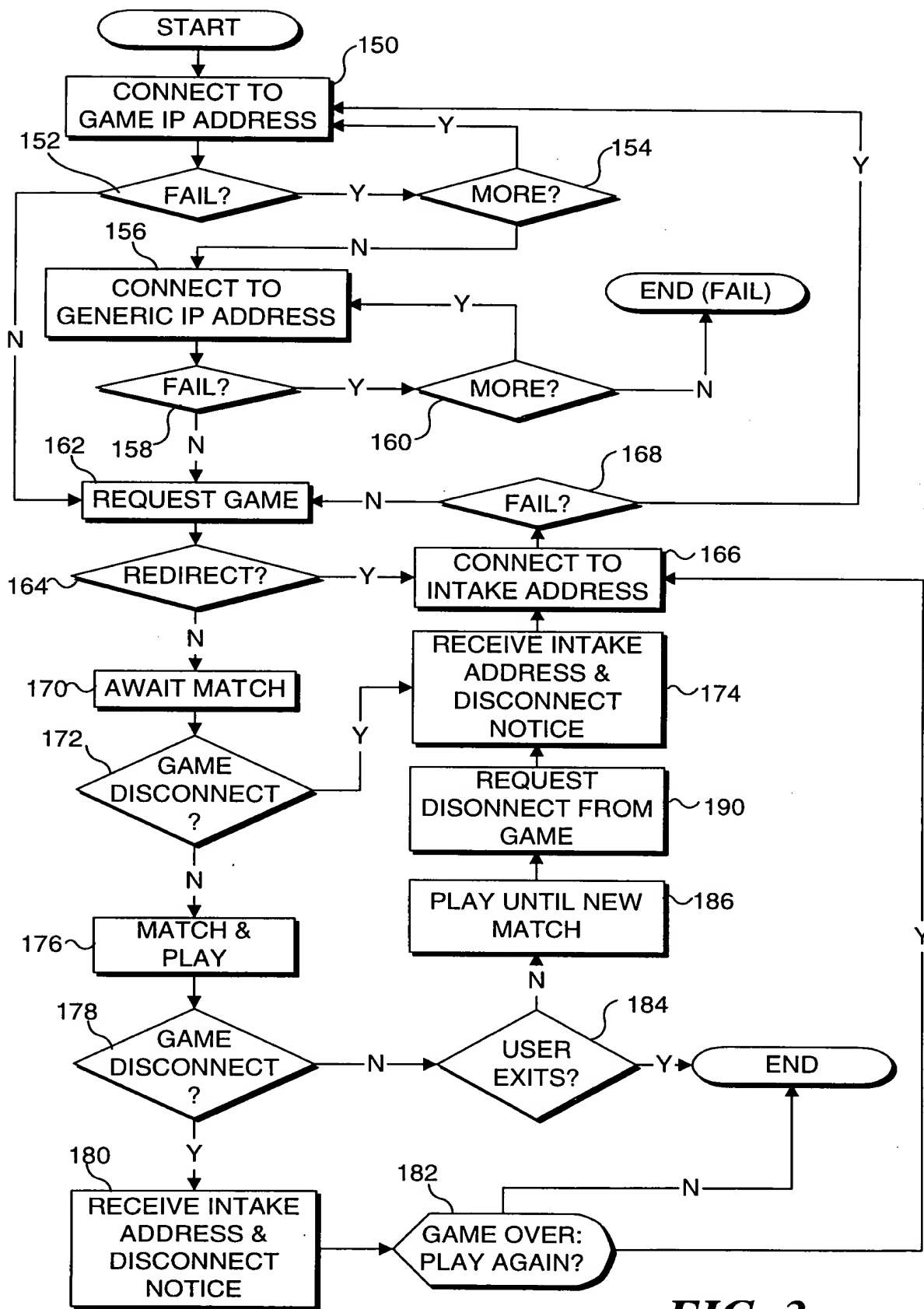


FIG. 3

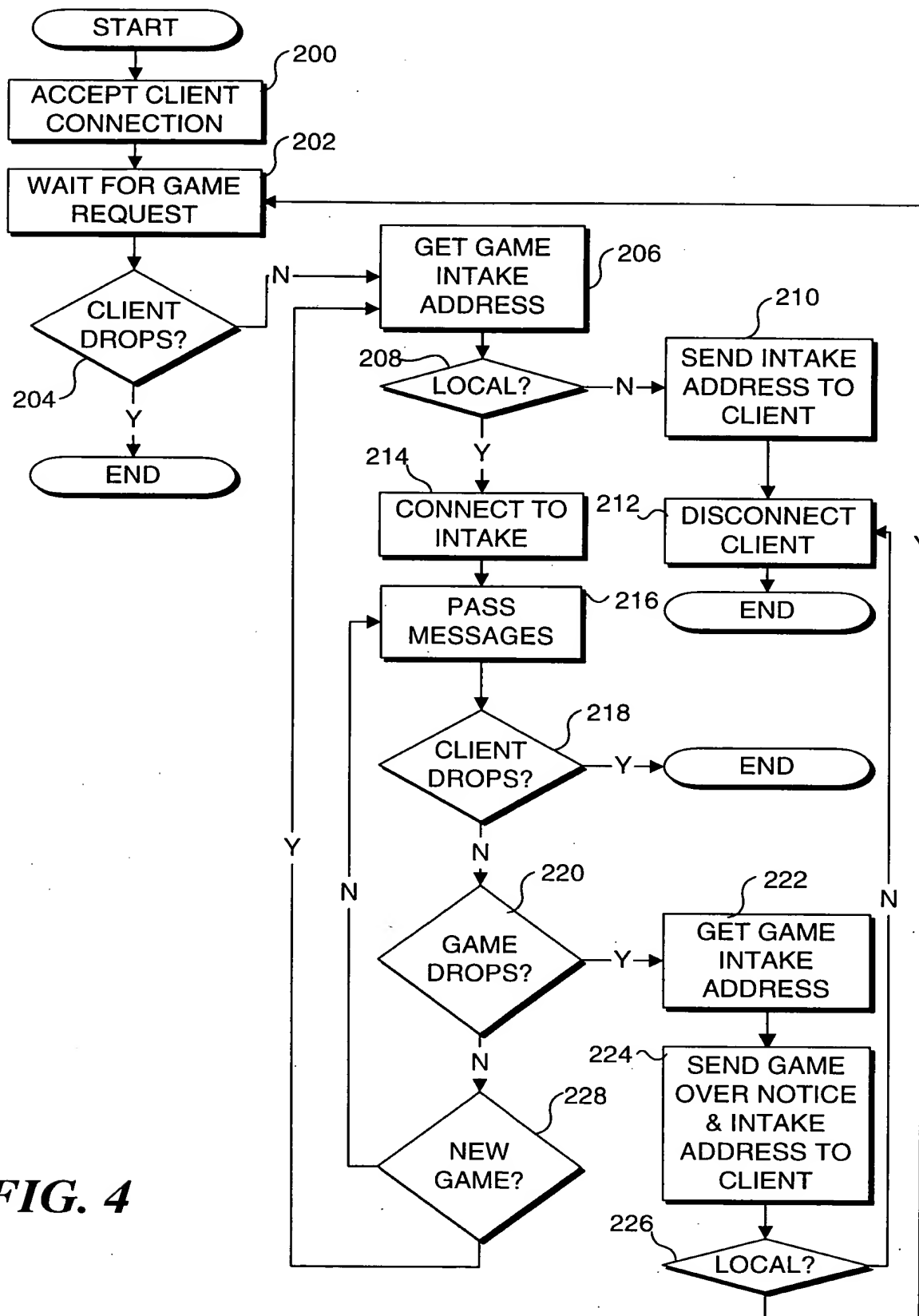


FIG. 4

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graph TD
    START([START]) --> INIT[INITIALIZE 250]
    INIT --> ANY_UDP{ANY UDP MESSAGE? 252}
    ANY_UDP -- N --> A{{A}}
    A --> ANY_UDP
    ANY_UDP -- Y --> READ_UDP[READ UDP 254]
    READ_UDP --> SERVICE{SERVICE? 256}
    SERVICE -- Y --> UPDATE_SERVICE[UPDATE SERVICE STATES 258]
    SERVICE -- N --> DATA{DATA? 260}
    DATA -- Y --> UPDATE_NODE[UPDATE NODE STATES 262]
    DATA -- N --> INTAKE{INTAKE? 264}
    INTAKE -- Y --> NEW_INTAKE{NEW INTAKE NODE? 266}
    INTAKE -- N --> HEARTBEAT[HEARTBEAT 268]
    HEARTBEAT --> INTAKE_NODE{INTAKE NODE? 272}
    INTAKE_NODE -- Y --> LOWER_ID{LOWER ID? 274}
    LOWER_ID -- Y --> ANY_UDP
    LOWER_ID -- N --> NEW_INTAKE
    INTAKE_NODE -- N --> UPDATE_LIST[UPDATE LIST OF INTAKE LOCATIONS 270a]
    NEW_INTAKE -- Y --> SERVICE_AVAILABLE{SERVICE AVAILABLE? 276}
    NEW_INTAKE -- N --> UPDATE_LIST
    SERVICE_AVAILABLE -- Y --> SEND_HEARTBEAT[SEND HEARTBEAT 278a]
    SERVICE_AVAILABLE -- N --> SELECT_NEW[SELECT NEW INTAKE 280a]
    SELECT_NEW --> LOCAL{LOCAL? 282a}
    LOCAL -- Y --> SEND_HEARTBEAT
    LOCAL -- N --> SEND_INTAKE[SEND INTAKE 284a]
    SEND_INTAKE --> UPDATE_LIST
    SEND_HEARTBEAT --> UPDATE_LIST
    UPDATE_LIST --> ANY_UDP
    UPDATE_LIST --> LOOP_TIMEOUT{LOOP TIME-OUT 286}
    LOOP_TIMEOUT --> SHUTTING_DOWN{SERVICE SHUTTING DOWN? 288}
    SHUTTING_DOWN -- Y --> END([END])
    SHUTTING_DOWN -- N --> ANY_UDP

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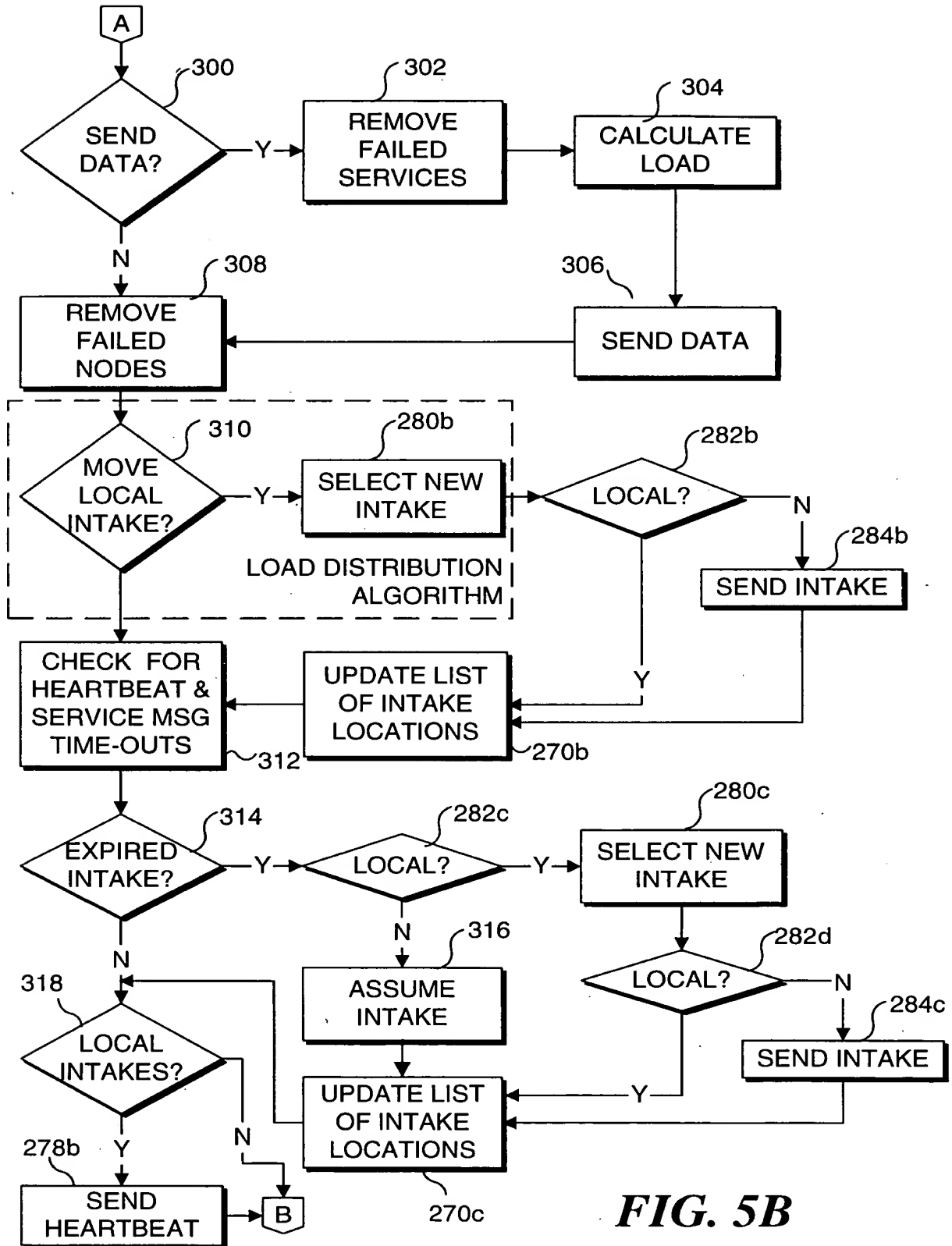


FIG. 5B